

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

The specification and claims have been revised in accordance with the objection to the specification and the rejection under 35 U.S.C. § 112, to be consistent with the remainder of the specification, as further explained below. Additionally, in accordance with the objection to the drawings, new replacement sheets label Figures 3, 4 and 6 as “PRIOR ART.”

As shown in Figure 5, it has been known that a hydraulic circuit for a crane may have two separate circuit groups, each comprising two or more circuits connected in series, and each group driven by a separate hydraulic source 10 or 11. Such known prior art, however, is subject to the problem that pressure interference can arise when two motor circuits within a given group are operated simultaneously.

In accordance with the present invention, there is further provided a switching valve which, when switched to a second position thereof, both cuts off two of the motor groups in a first actuator group, and connects the downstream one of the motors to the hydraulic source for the second group.

For example, referring to the non-limiting embodiment of Figure 1, a first actuator group C includes actuators driven by a first hydraulic source 21 and may include a left traveling motor circuit 24, a boom hoisting motor circuit 26 and an auxiliary motor circuit 28. The second actuator group D, on the other hand, is driven by the second hydraulic source 22 and may include the circuits 33 and 35.

A switching valve 43 is switchable between a first position “x” and a second position “y.” When the switching valve 43 is in the position “x,” the hydraulic fluid flows as shown in heavy lines in Figure 1. On the other hand, the switching valve, when in the position “y,” both cuts off communication between the circuits 26 and 28, and communicates the circuit 28 with the hydraulic pressure from the second hydraulic source 22 via the line 50 (page 7, lines

12-22). This feature is now clearly set forth in Claims 1 and 7. For example, Claim 1 now recites that when the switching valve is at the second position thereof, “said boom hoisting motor circuit and said wind up motor circuit are cut off from one another and a downstream one of said boom hoisting motor circuit and said wind up motor circuit is connected to said second hydraulic source via said switching valve.” Claim 7 similarly recites that “said motor circuits are cut off from one another and a downstream one of said motor circuits is connected to the second hydraulic source via said switching valve” at the second position of the switching valve.

Claims 1-4, 6 and 7 were rejected under 35 U.S.C. § 103 as being obvious over the admitted prior art of Figure 5 in view of U.S. patent 3,922,855 (Bridwell et al.). Applicants wish to thank Examiner Lopez for the courtesy of an interview in April 27, 2004 at which time the outstanding rejection was discussed. At the conclusion of the interview it was agreed that Bridwell et al. fails to teach or suggest modifying the admitted prior art such that a switching valve positionable in a second position wherein a boom hoisting motor circuit and a wind-up motor circuit are cut off from one another, and a downstream one of the boom hoisting motor circuit and the wind-up motor circuit is connected to a second hydraulic source via the switching valve. It is therefore Applicants’ understanding that the rejection based upon the admitted prior art and Bridwell et al. would be withdrawn for the presently amended claims.

Allowable Claim 5 has been rewritten in independent form.

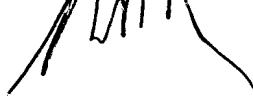
The specification has been amended in light of the objection thereto, which is believed to be moot, in a manner consistent with the amended claims. The claims, including Claim 5, have also been amended in light of the rejection under 35 U.S.C. § 112, which is also believed to be moot. An amendment labeling Figures 3, 4 and 6 as prior art is being submitted.

Applicant therefore believes that the present application is in a condition for allowance and respectfully solicits an early Notice of Allowability.

Respectfully submitted,

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